For these reasons, the FCC urged all parties to "work together to bring about as quickly as possible *national* methods to conserve and promote efficient use of numbers that do not undermine that uniform system of numbering."[12] Implementation of numbering policies, by individual states, simply cannot work. Different number optimization and pooling plans for each state increases costs dramatically and discourages market entry, which ultimately harms competition. To the extent that carriers must use different types of technology and dedicate separate staff to monitor compliance with varying state numbering regulations, the costs of not having a uniform national numbering plan could be quite high. Indeed, multiple state plans will only serve to balkanize numbering. Moreover, even evaluating success on a state-by-state basis is not helpful with regard to wireless carriers: a nationwide policy, and nationwide evaluation of the success or failure of a numbering policy, is particularly essential for the wireless industry because such carriers operate without regard to state boundaries. In the *Pennsylvania Order*, for example, the FCC recognized that the effect of wireless pooling in only a single state or single area code would be to deprive customers of the ability to use the service outside of the state or area code in which the pooled number was assigned.[13] Numbering policies and practices in each state are simply inextricably interrelated, and certainly will affect each other in numerous ways. Precisely for this reason Congress granted the FCC "exclusive jurisdiction" over numbering.[14]

PCIA respectfully submits that the difficulties inherent with individual state action are perhaps most tellingly illustrated by reference to the problems that have arisen and that will arise as a result of state implementation of pooling policies and practices. For example,

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12 *Pennsylvania Order*, ¶ 21 (emphasis added).

13 *Id.*, ¶ 39.

14 47 U.S.C. § 251(e)(1).

number pooling rules that are individual to each state almost certainly will conflict to varying degrees with national number portability guidelines and put carriers that serve states with inconsistent rules into untenable positions. Various states -- including Colorado, Connecticut, Illinois, and Texas -- have actively considered implementation of number pooling in an effort to avoid issuing new area codes despite imminent exhausts. Connecticut and Texas have also ordered carriers to return numbers in preparation for the potential adoption of number pooling schemes. Number pooling schemes like those Colorado, Connecticut and Texas are currently considering would discriminate against wireless carriers, and others that are not LNP-capable. It is undisputed that LNP is a prerequisite to successful number pooling.[15] Virtually no wireless carriers are currently able to provide LNP. Moreover, the FCC has given broadband carriers until November 2002, to implement number portability and has ruled that narrowband paging carriers (including paging carriers) *cannot* be ordered by the states to participate in number portability programs.[16]

Because wireless carriers cannot receive numbers from number pools without LNP, any of the number pooling schemes that have been considered by the states would result in the inequitable distribution of numbering resources in violation of the Act, as well as the FCC's

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15 As the Industry Numbering Committee ("INC") explained in its *Initial Report To The North American Numbering Council ("NANC") On Number Pooling Version 2* (December 4, 1997) ("*INC Report*"), "any implementation of pooling can only be supported if permanent LRN LNP is available." *INC Report* at 10. Given the inextricable link between number portability and pooling, INC recognized that it was only fair that "[s]ervice providers should not be required to participate in number pooling before they are required to offer local number portability." *Id.* at 14.

16 *Telephone Number Portability*, First Report and Order, 11 FCC Rcd 8352, 8433-34 (1996) ("*First Report and Order*"); *Telephone Number Portability*, First Memorandum Opinion and Order on Reconsideration, FCC 97-74, ¶ 134 (March 11, 1997). The FCC's wireless LNP implementation deadlines are under appeal and could be further delayed by the court or by the Wireless Telecommunications Bureau pursuant to its delegated authority. *See Bell Atlantic NYNEX Mobile, Inc. v. FCC*, No. 97-9551 (10th Cir.) (Briefs for Petitioners filed October 22, 1997).

rules and numbering guidelines -- which were issued at the request of multiple wireless carriers. Unless the FCC adopts and implements stringent national guidelines or standards regarding these various number pooling schemes -- as well as with regard to the other proposals in the *NPRM*, the national numbering framework contemplated by Congress will erode entirely and competition in the U.S. telecommunications market will suffer severely.

Moreover, the FCC needs to continue to be clear with respect to numbering issues and create bright lines in all of its actions and statements, because carriers and their customers are facing number resources crises each time state commissions venture into jurisdictionally gray areas. Each and every federal rule relating to numbering must reflect this basic principle.

B. The FCC Must Ensure That Any Role Played By The States With Regard To Numbering Issues Must Be Entirely Consistent With National Numbering Rules And Guidelines.

Along with its grant of exclusive jurisdiction over numbering issues to the FCC, Congress permitted the FCC to delegate to state commissions or other entities all or any portion of its jurisdiction over numbering administration. In implementing Section 251(e), the FCC specified that, if the FCC delegates telecommunications numbering administration functions to any state, the state must perform the functions in a manner consistent with the following general requirements, which also guide the FCC's own numbering efforts. Numbering administration must: (1) facilitate entry into the telecommunications marketplace by making telecommunications numbering resources available on an efficient, timely basis to telecommunications carriers; (2) not unduly favor or disfavor any particular industry segment or group of telecommunications consumers; and (3) not unduly favor one telecommunications technology over another.[17] Accordingly, PCIA respectfully submits that any mandatory national

[17] 47 C.F.R. § 52.9(a).

numbering guidelines should be entirely consistent with, and supportive of, these current rules and should be designed to ensure that there will be no ambiguity with respect to the role of the states.

In that regard, the FCC has sought comment on whether the agency should delegate any additional authority to the various state commission over numbering issues -- including, for example, permitting the state commissions to engage in number administration enforcement activities,[18] order NXX block reclamation,[19] establish dispute resolution or appeal procedures regarding activation or reclamation of NXX blocks,[20] implement 10-digit dialing or D-digit expansion,[21] implement number pooling programs,[22] and establish expanded area overlays.[23] As set forth below, PCIA urges the FCC to maintain its position of preeminence with respect to each and every one of these and other proposed methods of numbering optimization, and to decline to delegate any additional authority to the states. If, however, the FCC chooses to expand the role of the states in this regard, it must still develop detailed national standards and rules so that carriers do not eventually face a myriad of different numbering regulations or standards from individual states. As the FCC noted in the *Pennsylvania Order*, such a balkanization of the nation's numbering policies will interfere with the routing of calls and will

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18 *NPRM*, ¶ 93.

19 *Id.* at ¶ 100.

20 *Id.* at ¶ 100.

21 *Id.* at ¶¶ 126, 129.

22 *Id.* at ¶¶ 130-214.

23 *Id.* at ¶ 255.

add to the cost of doing business for all carriers operating in different states.[24] However, the FCC has recognized that the various state commissions are, in some cases, "uniquely situated," based on their familiarity with local issues and concerns, to make some limited decisions and to advise the FCC regarding certain numbering polices and practices.[25] Specifically, for those reasons, in implementing Section 251(e) the FCC delegated to the states only the limited authority to "resolve matters involving the introduction of new area codes within their states."[26]

The FCC wisely and expressly "decline[d] to authorize states to handle CO code assignment functions," or any other number conservation measures that amount to NXX code

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24 Administrative costs alone would skyrocket if states were permitted to have individual plans. Some carriers have already had to hire additional staff to handle the myriad of administrative numbering requests that are flowing from states doing pooling trials, or those that are otherwise active in reversing number utilization, and if each state participates in numbering administration as well, a carrier's expense in this regard is sure to escalate. Moreover, many new entrants and wireless carriers have single switches serving multiple states, thereby making it difficult, if not impossible, to do some types of reports except on a manual basis if the requirements are difficult.

25 *See Pennsylvania Order*, ¶ 32.

26 47 C.F.R. § 52.19(a). Under Section 52.19 of the FCC's rules, a state may implement any one of only three specific procedures: (1) a geographic split; (2) an overlay area code; or (3) an area code boundary realignment. The FCC further limited its delegation of authority to the states by forbidding service specific overlays. The FCC has subsequently specifically delegated a limited amount of additional authority to the state commissions to order NXX code rationing in conjunction with area code relief decisions. Specifically, the FCC determined that a state commission may order rationing if it has already ordered a specific form of area code relief -- split, overlay, or boundary realignment -- and established an implementation date, and the industry is unable to agree on a rationing plan. *Pennsylvania Order*, ¶¶ 24-25. However, if the state commission has not satisfied these conditions, the NXX code administrator and the industry, not the state commission, have the authority to devise the jeopardy conservation or rationing measures as necessary, consistent with current industry practice. *Id.* at ¶25. Although state commissions can and should participate in the discussions on the rationing plan through attendance at industry meetings, the FCC made clear that a state commission "may not impose a rationing plan on its own to avoid making a decision on area code relief." *Id.* at ¶25.

administrations, such as number pooling or number take-backs in preparation for number pooling.[27] In so doing, the FCC noted:

> [w]hile we authorize states to resolve specific matters related to initiation and development of area code relief plans, we do not delegate the task of overall number allocation, whether for NPA codes or CO codes. To do so would vest in fifty-one separate commissions oversight of functions that we have already decided to centralize in the new NANPA. *A nationwide uniform system of numbering, necessarily including allocation of NPA and CO code resources, is essential to efficient delivery of telecommunications services in the United States.*[28]

Moreover, the FCC does not permit states to control NXX code allocation since doing so could "lead to inconsistent application of [NXX] code assignment guidelines."[29] Thus, states may not implement number pooling or order number take-backs in preparation for number pooling, or engage in other conservation measures, however well-meaning, as that falls within the purview of the FCC.

As with its delegations of limited authority to the states with regard to area code relief and corresponding conservation measures, the FCC should ensure that any additional delegations of authority to the states are, first, absolutely essential to accomplish the goals articulated in the *NPRM*, and, second, are explicitly defined and narrowly tailored. In addition, PCIA urges the FCC to ensure that the states are expected to work closely with the industry and the numbering administrator to carry out any of the tasks delegated in this proceeding. In short, the FCC should be guided by its past practices with respect to delegations of numbering authority, and must not lose sight of its ultimate goal of establishing and implementing a *national* numbering policy.

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27 *Second Report and Order*, ¶ 315.

28 *Id.* at ¶ 317 (emphasis added).

29 *Id.* at ¶¶ 310, 321.

IV. NUMBERING OPTIMIZATION MEASURES

The FCC seeks comment on a variety of numbering optimization measures it hopes will ensure more efficient utilization of telephone numbers. PCIA urges the FCC to adopt certain of those optimization measures as soon as possible to ensure continued availability of telephone numbers.

A. The FCC's Top Optimization Priority Must Be To Ensure That Rate Centers Are Consolidated Immediately to the Greatest Extent Feasible Nationwide.

Rate center consolidation is unquestionably the most critical means of achieving more efficient number utilization, because it corrects the most direct cause of inefficient number utilization; small rate centers. Small rate centers are the culprit because at least one NXX code must be allocated to every rate center in which a particular wireline carrier provides service, even if the carrier only serves one customer in the rate center. The more rates centers there are, the more NXX codes need to be allocated both to the ILEC and to new entrants, and the lower the percentage of utilization of the NXX codes assigned. Exhaust of an NPA is, in fact, directly tied to the number of rate centers in the NPA. This vestige from monopoly days certainly cannot be allowed to continue. Fortunately, rate center consolidation is among the easiest optimization measures to implement from a technical and economic perspective,[30] and with the move toward increased service area size for local calling in any event, the one option with the least economic impact. Rate center consolidation simply must be implemented, and implemented immediately. First, it is the only solution under consideration that addresses the root of the problem – multiple

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30 PCIA recognizes that some technical modifications may need to take place even here if, for example, the premise that certain outdated analog switches will need modification or replacement turns out to be accurate. However, it is PCIA's understanding that these analog switches, such as the IAESS, are being replaced in the ILEC network now because of other major limitations in the metropolitan areas most in need of rate center consolidation.

rate centers that are totally unnecessary, and totally inapposite to efficient number utilization. No other utilization modification will have the same benefit, but rather these others are bandages which allow the underlying disease to fester untreated. Second, the sooner it is implemented, the fewer NXX codes will be needed by new entrants to offer local calling areas that are similar to the ILECs. In fact, some new entrants without subscribers in recently assigned NPA NXXs may be able to forego new use, and rely on other NPA NXX codes that can now be used over a broader area.

The potential benefits of nationwide rate center consolidation are impressive. In a purely hypothetical example, if the 100 largest markets had 15 new telecommunications carriers in each market, and each of these markets consolidated rate centers from 55 to 5 (a reduction of 50 rate centers), there would be a total savings of 94 NPAs or 75,000 NXX codes.

Even under far less aggressive assumptions, the benefits of rate center consolidation are substantial, and demonstrate why rate center consolidation must be the cornerstone of any numbering optimization plan. The following chart attempts to demonstrate the potential effect of rate center consolidation for certain Chicago and Boston NPA NXXs.[31]

For example, in Chicago, there are 79 rate centers in the 815 NPA alone, and 202 rate centers in the Chicago LATA, excluding the 219 and 414 NPAs. As the chart below demonstrates, even with eight new carriers entering the market, a reduction in only 50% of the rate centers results in savings of 804 codes.

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[31] The number of rate centers has been extrapolated from the Local Exchange Routing Guide, so in some instances the actual number of rate centers or districts within rate centers, which also affect the number of NXX codes needed to rate calls in the same manner as the ILEC, may not be identical to the actual number of rate centers, or districts shown by an ILEC.

Rate Center Analysis

Chicago 358 LATA (excluding 219 and 414 NPAs)

	Existing NPA	Current Quantity of Rate Centers	Current Quantity of Codes Needed for 8 New Carriers	Reduced Quantity of Rate Centers	Reduced Quantity of Codes Needed for 8 New Carriers	Total Quantity of Codes Saved by Reduction in Rate Centers	Quantity of NPAs Saved by Reduction in Rate Centers
	312	1	8	1	8	0	0
	630	26	208	13	104	104	0.13
	708	44	352	22	176	176	0.22
	773	10	80	5	40	40	0.05
	815	79	632	40	320	312	0.39
	847	42	336	21	168	168	0.21
Total:	N/A	202	1616	102	816	800	1.01

Boston 128 LATA

	Existing NPA	Current Quantity of Rate Centers	Current Quantity of Codes Needed for 8 New Carriers	Reduced Quantity of Rate Centers	Reduced Quantity of Codes Needed for 8 New Carriers	Total Quantity of Codes Saved by Reduction in Rate Centers	Quantity of NPAs Saved by Reduction in Rate Centers
	508	98	784	49	392	392	0.49
	617	23	184	12	96	88	0.11
	781	42	336	21	168	168	0.21
	978	57	456	29	232	224	0.28
Total:	N/A	220	1760	111	888	872	1.10

As these hypothetical calculations demonstrate, rate center consolidation would immediately save more NPAs than thousands number pooling, without the same substantial expense and network modifications. Moreover, number pooling could still be implemented after rate center consolidation if further gains are necessary.[32]

[32] It would not make sense to implement number pooling before rate center consolidation, because rate center consolidation makes number pooling much more efficient and multiple rate centers are the root cause of inefficient number utilization.

Some wireless carriers' reliance on reverse toll billing (a means by which the carrier instead of the calling party pays for transport) has resulted in a single NXX being used by a carrier to allow calling from all of the end offices of a LEC over the entire LATA. Unfortunately, reverse toll billing has decreased as a viable economic or technical option for interconnection, based on increased charges and multiple ILEC carriers. With the withdrawal of reverse toll billing in some states, and carriers' decisions not to continue to pay the toll rates on behalf of callers, even wireless carriers are becoming more ILEC rate center dependant. This means, in the absence of consolidation of rate centers, even more codes will be required to be utilized.

As the FCC recognizes, there is growing recognition that rate center consolidation is one of, if not the best number optimization method available today . Even some ILECs have recognized the need for, and relative ease of, rate center consolidation in the post-monopoly era. U.S. West states, for example, that rate center consolidation can be done in an area as large as a state or NPA, or as small as just a few individual rates centers within a local calling area.[33] The *Notice* also cites the NANC Report for the proposition that 17 states favor the implementation of rate center consolidation, and seven states have already implemented or plan to implement rate center consolidation.[34] However, PCIA shares the FCC's concern that some states or ILECs may be reluctant to implement rate center consolidation. In order to overcome this reluctance, PCIA urges the FCC to require states to certify that they have already consolidated rate centers to the greatest extent possible, consistent with public safety requirements, before implementing number

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33 *U.S. West Comments* in NSD File No. L-98-134.

34 *NPRM*, ¶ 115 n.185.

pooling. A reduction of at least 50 % of the rate centers within a state would be considered compliance with this rule.[35]

In light of the relative ease of implementation of rate center consolidation, PCIA urges the FCC to make rate center consolidation one of the cornerstones of its efficient number utilization program. It is one of the only approaches that can be rapidly implemented, thereby creating immediate benefit. Texas, for example, was able to implement at least some measure of rate center consolidation within only four months of regulatory approval. Similarly, Minnesota consolidated 21 rate centers into a single rate center within six months of regulatory approval. Even if it might take longer to consolidate rate centers in some states, rate center consolidation can nonetheless be implemented rapidly.[36] If the FCC does not permit number pooling until after rate center consolidation is complete, the states will have the necessary incentives to ensure that rate center consolidation is completed in a timely manner.

Not only does rate center consolidation have an immediate beneficial effect on number utilization, it also makes subsequent numbering optimization measures more effective. For example, assuming for the sake of discussion that number pooling is feasible, rate center consolidation significantly increases its effectiveness, because the numbers from the pool can be allocated to a larger geographic area.

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35 From a process perspective, states could be required to certify to the FCC that they have complied with this rule sixty days prior to implementing pooling, unless a state certifies to the FCC that it is infeasible to do so to the maximum extent possible because of public safety concerns. The 50% should be measured starting on October 1, 1996, to the date of the state certification.

36 BellSouth has recently told the Georgia PUC that it would take 19 months to consolidate 59 BellSouth rate centers in the Atlanta area to 27 (the Atlanta rate center, Atlanta suburban rate center, and 25 outer fringe rate centers). *Report on Rate Center Consolidation of BellSouth Telecommunications, Inc.*, Docket No. 7423-U.

B. The FCC Should Implement Nationwide 10-digit Dialing.

The introduction of nationwide 10-digit dialing is inevitable. As the FCC is aware, metropolitan areas across the country are beginning to experience the "shrinking geographic area code" syndrome, which occurs when high demand for numbers requires a new area code to be implemented every year or two, and the area codes are introduced using geographic splits in order to try to preserve 7-digit dialing. As the area codes shrink due to successive splits, the percentage of local calls requiring 10-digit dialing increases, and the clarity of geographic boundaries decreases. The end result is 10-digit dialing for the majority of calls.

PCIA concurs with the FCC that deployment of mandatory 10-digit dialing should now be considered because it would free up additional codes not currently available for assignment, as formerly protected codes could be used.[37] The true importance of 10-digit dialing, however, lies in the other benefits it provides. Ten-digit dialing acclimates consumers to dialing additional numbers if implemented on a permissive basis in those areas not yet facing exhaust. Once the consumer education period is completed and consumers are comfortable with the new dialing pattern, 10-digit dialing can be implemented on a mandatory basis. This would allow new area codes to be implemented using all-service overlays, the most effective form of area code relief.[38] Consumers will eventually become acclimated to overlay area codes, which will ease the future transition to non-geographically based area codes that will accompany individual non-geographic number portability if and when it is implemented.

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[37] PCIA understands protected codes to include those NXX codes that have not been assigned in a particular NPA because those same codes are being utilized in the same local calling area, but in a different NPA.

[38] *See* Section V.F., *infra*.

C. The FCC Must Establish Co Primary Number Administrations For LNP And Non-LNP Participating Carriers.

The FCC has tentatively concluded that implementing thousand block number pooling in major markets "is an important numbering resource optimization strategy that is essential to extending the life of the NANPA."[39] The FCC also recognizes that a number of carrier classifications are not capable of number portability currently, and in many cases, have no obligation to become LNP capable because doing so would impose unnecessary costs on these carriers without significant benefits.[40]

LNP-dependent optimization methods, such as pooling, must be implemented, if at all, on a technology-neutral basis, with non-LNP capable carriers having a real opportunity to obtain the numbering resources they need.[41] To that end, if the FCC does mandate pooling, it must set up a central office code allocation methodology in which the Numbering Plan Administrator assigns central office codes to both the pooling administrator and the non-LNP capable carriers on a first-come-first-served-basis.[42] Carriers not participating in the pool would get their codes directly from the Numbering Plan Administrator, while carriers participating in the pool would get their numbers blocks directly from the Pooling Administrator. When the

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39 PCIA submits that it is only through the utilization of rate center consolidation in conjunction with number pooling that pooling has real potential impact, even assuming it is otherwise feasible. With rate center consolidation, the numbers that are in the pool can be allocated over a larger geographic area, thereby making any pooling more effective.

40 Inexplicably, however, the FCC goes on to suggest that non-LNP-capable carriers could somehow be ordered to participate in number pooling. The simple technical fact is that non-LNP-capable carriers cannot participate in number pooling under any circumstances, and any suggestion otherwise is misleading. *See, e.g., NPRM* at ¶¶108, 145, 149, 159, 163, 166, 172, 207-08, 216-18.

41 PCIA also urges the FCC to adopt national criteria under which number pooling would be implemented, if pooling is to be permitted at all.

42 PCIA's comments do not address the wisdom of number pooling for wireline carriers, but rather focus on its flaws for wireless carriers and the continuing need to have central office code assignment processes that do not discriminate in favor of or against non-LNP capable carriers.

Pooling Administrator needs a new code, it would make a request of the Numbering Plan Administrator using the same procedures that carriers not participating in the pool would use to obtain a new code. The attached chart sets forth the mechanism that PCIA envisions. Area code exhaust will still be triggered by the Numbering Plan Administrator just as happens today.

There is reason, however, to assure that all carriers obtaining central office codes are subject to similar obligations with respect to number efficiency and utilization. The FCC's own rules provide the starting point for discussion of central office code assignment. Since the advent of numbering disputes in the late 1980s, the FCC has required that area code allocations be done on a technology neutral basis, and has stood fast against discrimination in the allocation or assignment of telephone numbers.[43] Consistent with this past practice, and its underlying statutory obligation in this proceeding, the FCC must establish a means of obtaining telephone numbers for both LNP and non-LNP capable carriers that is equitable to both, should it move forward with number pooling in some form.

D. There is no Basis for Requiring Non-LNP Wireless Carries to Pool.

Notwithstanding its recognition that many carriers, both wireline and wireless, are not and will not be LNP capable, the FCC suggests at various points that it might be feasible to have those carriers participate in number pooling.[44] Any such suggestion is mistaken. It is beyond dispute that number portability is a necessary predicate for number pooling, because number portability allows 1000 blocks of telephone numbers to be assigned to carriers other than

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43 In response to a petition filed by three wireless carriers, the FCC required that all numbering administration (1) facilitate entry into the telecommunications marketplace by making numbering resources available on an efficient, timely basis to telecommunications carriers; (2) not unduly favor or disfavor any particular industry segment or group over another; and (3) not unduly favor one telecommunications technology over another. 47 C.F.R. § 52.9 (a).

44 See NPRM at ¶¶ 108, 145, 149, 159, 163, 166, 172, 209-00, 216-18.

the one to which the NXX code has been assigned in the LERG. Consequently, in order to participate in pooling, non-LNP carriers would have to perform a total network upgrade to implement number portability. As the Commission has repeatedly recognized, broadband wireless carriers need additional time in order to upgrade their networks for number portability, and narrowband wireless carriers need not implement number portability at all due to the exorbitantly high costs of network redesign and the unavailability of switches that can perform the portability functions.

In any event, there is no basis for requiring wireless carriers to participate in number pooling because wireless carriers, by anyone's measure, are the most efficient users of numbering resources. For example, the North American Numbering Plan ("NANPA") Report on NANP Exhaust and the Impact of Thousand Block Pooling ("Pooling Report") reflects higher utilization rates for wireless carriers than wireline carriers. However, even the Pooling Report grossly understates the efficiencies that wireless carriers command, and overstates hypothetical benefits that would be obtained if wireless carriers were required to pool. The Pooling Report, for example, wrongly assumes that as many as 14 CMRS providers will enter the market by 2009, and fails to consider the consolidation that the wireless market is currently undergoing and many other relevant factors, such as the availability of spectrum to allow such entry.

Moreover, the Pooling Report assumes that wireless carriers are in 14% of the ILEC rate centers, a number that CTIA[45] and PCIA dispute as inflated, and does not properly recognize the unique characteristics of wireless carrier number utilization. A combination of

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[45] *See* Letter from M. Altschal, CTIA, to A. Hassellwander, NANC Chairman, dated April 22, 1999.

factors, including the use of reverse billing and the ability of wireless carriers to create their own local calling areas, have reduced wireless carrier dependence on ILEC rate centers. This lesser reliance on rate centers, coupled with rate center consolidation, assures that wireless carriers will continue to be efficient users of numbering resources, and even increase their utilization rates.

Although PCIA submits that number pooling is not yet proven to be an effective means of number optimization for any type of carrier, it would be far less effective for wireless carriers than wireline carriers. Number pooling theoretically improves overall utilization rates in three basic ways. First, number pooling improves utilization rates initially by reclaiming all unopened blocks of 1,000 numbers from participating carriers. This type of gain is greatest where carriers have relatively low utilization rates before implementation of number pooling. As explained above, wireless carriers have much higher utilization rates on average than wireline carriers. Therefore, the gains to be achieved by requiring wireless carriers to participate in number pooling would be much lower.

Second, number pooling improves utilization rates on an ongoing basis because growth codes are assigned as needed in blocks of 1,000 numbers rather than full NXXs. This type of gain is greatest where carriers have relatively flat growth rates within specific rate centers because it allows carriers to request only the amount of numbers needed to satisfy customer demand, and at no time are more than 999 numbers unused in each rate center, as compared to a full NXX in a non-pooling environment. Wireless carriers typically have much higher growth rates within individual rate centers than wireline carriers. In other words, wireless carriers typically use growth codes more quickly than wireline carriers. Therefore, the gains to be achieved by requiring wireless carriers to participate in number pooling would be much lower.

Finally, number pooling improves number utilization particularly where there is high customer churn, and customers move their existing service from one carrier to another rather than purchasing new services. In such an environment, pooling allows the overall use of numbering resources to remain constant, despite dramatic swings in the number utilization rates of individual carriers. By contrast, wireless carriers growth is typically based on new services purchased in addition to wireline services. Consequently, number pooling would not be as effective, because the overall usage of wireless numbering resources is growing due to new services, not merely churning existing services. Therefore, number pooling would be far less effective in the wireless carrier environment.

E. All-Service Overlays Are The Most Effective Form Of Area Code Relief.

PCIA submits that, of the permissible forms of area code relief, all-service overlays are the most effective in the vast majority of situations because they are fast and easy to implement, they provide effective relief to number exhaustion, and they conserve numbering resources. All-service overlays are typically superior to boundary adjustments inherent in geographic splits, because all service overlays combined with mandatory 10-digit dialing provide long-term number relief while boundary adjustments in most cases provide only temporary number relief. NANC agrees, concluding in its Report that "[t]he overlay method is particularly appropriate in areas where the need for frequent NPA relief is anticipated."[46] All-service overlays provide quicker relief than geographic splits, because an initial overlay can be implemented in as little as six months,[47] which is significantly shorter than the 12 to 18 months

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46 North American Numbering Council ("NANC"), Number Resource Optimization, § 12.1.10.2 (Oct. 20, 1998) ("*NANC Report*").

47 *Id.* at § 12.1.3.

needed to implement a geographic split.[48] In other words, one year can be saved by implementing an all-service overlay instead of a geographic split. Subsequent all-service overlays in the same area can be implemented even more rapidly (in as little as four months),[49] which can prevent rationing even when an unexpected increase in demand for NXX codes causes rapid exhaust of an area code.

All-service overlays allow NXX codes to be used more efficiently. With an all-service overlay, the available NXXs can be used to satisfy demand throughout the area as needed. By contrast, a geographic split severs the area where codes are available, which could result in some available codes being left on one side of the split while carriers stand in line for codes on the other side of the split.[50] All-service overlays also conserve NPAs when subsequent relief becomes necessary, because NXX codes can be granted one by one as needed. Moreover, all-service overlays do not impose the economic burden on consumers associated with changing numbers due to geographic splits or number take-backs.

Finally, an all-service overlay is the form of area code relief that is most consistent with the FCC's current numbering guidelines, which require that numbering administration: (1) facilitate entry into the telecommunications marketplace by making telecommunications numbering resources available on an efficient, timely basis to telecommunications carriers; (2) not unduly favor or disfavor any particular industry segment or group of telecommunications consumers; and (3) not unduly favor one telecommunications

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48 *NANC Report*, §14.3.

49 *Id.* at §12.1.3.

50 In fact, industry standards require that geographic splits be designed to provide less relief to the area keeping the area code, and to provide more relief to customers who must change telephone numbers. Indeed, Texas, when faced with this regulatory problem, turned the 972 area code – originally a geographic code – into an overlay code.

technology over another.[51] Given the many advantages of all-service overlays, it is not surprising that many states, including California,[52] Colorado,[53] Florida,[54] Georgia,[55] Illinois,[56] Maryland,[57] New York,[58] Pennsylvania,[59] and Texas,[60] have chosen to implement all-service overlays instead of geographic splits or boundary realignments.[61]

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51 47 C.F.R. § 52.9(a).

52 *See, e.g., Order Instituting Rulemaking on the Commission's Own Motion Into Competition for Local Exchange Service,* 1999 Cal. PUC LEXIS 195 (Cal. P.U.C. Apr. 22, 1999).

53 *See Relief for the 303 Area Code,* 179 P.U.R. 4th 377, 1997 WL 610892 (Col. P.U.C. July 29, 1997), *reconsideration denied,* Second Decision & Order, D.98-605 (Col. P.U.C. June 4, 1998).

54 *See Review of Proposed Numbering Plan Relief for the 305 Area Code,* Docket No. 971058-TL, Order No. PSC-98-0040-FOF-TL (Fla. P.S.C. Jan. 6, 1998), *modified on reconsideration,* Decision No. PSC-98-0812-FOF-TL (1998) WL 456697) (June 19, 1998).

55 *See BellSouth Telecommunication Inc.'s Jeopardy Filing of New Area Code for Numbering Plan Area Relief for the 770 Area Code and 404 Area Code,* Docket No. 7423-U, Order (Ga. P.S.C. Aug. 8, 1997).

56 *See Citizen Utils. Bd.*, 1998 WL 324145 (Ill. C.C. May 6, 1998).

57 *See New Telephone Area Codes*, 1995 WL 770820 (Nov. 22, 1995), *rehearing denied sub nom.*, 1996 WL 677327 (Md. P.S.C. Feb. 13, 1996).

58 *See Proceeding on Motion of the Commission, Pursuant to Section 97(2) of the Public Service Law, to Evaluate the Options for Making Additional Central Office and/or Area Codes Available in the 212 and 917 Area Codes of New York City*, 1997 WL 839977 (N.Y.P.S.C. Dec. 10, 1997), *modified by Order Approving Postponement of Activation Date* (March 25, 1998); *New York Department of Public Service Petition for Expedited Waiver of 47 C.F.R. Section 52.19(c)(3)(ii)*, Order, DA 98-1434 (rel. July 20, 1998).

59 *See 215/610 Area Code Relief Plan*, Opinion and Order, P-00961061 (Pa. P.U.C. May 21, 1998).

60 *See Numbering Plan Area Code Relief Planning for the 214/972 Area Codes and Numbering Plan Area Code Relief Planning for the 713/281 Area Codes*, Order, Project Nos. 16899 & 16900 (Texas P.U.C. July 10, 1998).

61 Number portability has also blunted any possible competitive impact of an all service overlay in the wireless context by allowing subscribers to keep their existing numbers.

V. ADMINISTRATIVE MEASURES SHOULD BE DESIGNED TO PROVIDE CARRIERS WITH ADEQUATE NUMBERING RESOURCES TO SATISFY CONSUMER DEMAND

In the *Notice*, the FCC seeks comment on a variety of administrative and technical measures intended to promote more efficient allocation and use of NANP resources.[62] PCIA supports the FCC's efforts to improve the administration of NANP resources, recognizing that a comprehensive approach to number allocation and assignment included improved data gathering, and improved accuracy of data available.

PCIA urges the FCC to focus on linking all administrative and technical measures directly to events that trigger the need to implement numbering relief. The FCC should also consider the effect of proposed measures on the cost of providing service, which impacts consumers in the prices they pay for service and the variety of service providers and services from which they can choose. Under no circumstances, however, should carriers be required to pay for numbers.

A. The Need for Numbers Should Be Determined by a Months-to-Exhaust Forecast Accompanied by a Certification Under the FCC's Rules.

Rather than adopting complicated verification procedures for requests for initial codes, the FCC should adopt a rule requiring carriers to certify pursuant to Section 1.16 of the FCC's Rules[63] that they will be ready to use the codes within six months. If it is later determined that a carrier made a misrepresentation or willful material omission in its request for numbers,[64]

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62 *NPRM*, ¶¶ 36-104.

63 47 C.F.R. § 1.16.

64 Section 1.17 of the FCC's Rules forbids any applicant, permittee, or licensee to make any misrepresentation or willful material omission bearing on any matter within the jurisdiction of the FCC. 47 C.F.R. § 1.17.

the FCC could take appropriate actions under its existing rules, including the assessment of a forfeiture pursuant to Section 1.80 of the FCC's Rules.[65]

With respect to requests for growth codes, the FCC should adopt a rule requiring carriers to certify pursuant to Section 1.16 of the FCC's Rules that existing codes associated with a certain switch, point of interconnection ("POI") or rate center will exhaust within six months, and to prepare a Months-to-Exhaust worksheet. If it were later demonstrated that a carrier had made a willful misrepresentation or willful material omission in its request for numbers,[66] the FCC could assess a forfeiture pursuant to Section 1.80 of the FCC's Rules.[67] With these enforcement powers, the FCC could address actions of any carriers that attempt to willingly mislead the CO code administrator in order to obtain numbers they do not need in the short term.

Months-to-exhaust worksheets are the best measure available for the NANPA to determine carrier need and, coupled with annual reporting obligations, for the NANPA to utilize in predicting exhaust. The months-to-exhaust worksheet approach is preferable, for example, to the FCC relying upon percentage utilization figures, because months-to-exhaust criteria treat all carriers similarly. The same is not true of percentage utilization criteria which would operate to favor one industry segment over another. For example, a carrier that met the utilization criteria but was adding subscribers at 20% a year, would have far less time to apply for numbers than a carrier that met the utilization percentage but was growing at 4% a year. Of course, these percentages roughly reflect the different growth rates between wireless subscribers and wireline

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65 47. C.F.R. § 1.80.

66 47 C.F.R. § 1.17. *See* fn. 64.

67 47 C.F.R. § 1.80.

subscribers, evidencing the unintended negative impact that reliance in percentage utilization would have on wireless carriers.

Moreover, a months-to-exhaust formulation is a forward-looking measure, allowing carriers to take into consideration vagaries that occur seasonally, and with promotions, new product introduction, and the like. Wireless carrier number utilization is particularly sensitive to these uneven growth rates, or spikes. Many carriers, for example, experience exponential growth in the holiday season, but will have added numbers in the fall to take that circumstance into account. In this circumstance, percentage utilization factors may show the carrier at a lower utilization rate than typical, at a particular point in time, but an overall utilization rate which was exemplary. Using months-to-exhaust avoids this circumstance altogether because the carrier can take these seasonal, or other circumstances, into account.

Finally, the FCC should clarify that state commissions may only request number utilization reports from NANPA on an aggregated basis, and cannot access or require additional information from the carriers. It would be a huge burden to place on individual carriers to have to do reporting in 50 different ways, particularly when carriers may have a single switch or system serving multiple states.

B. Carriers Should Be Required To Submit Number Utilization Rates to the NANPA on an Annual Basis.

In the NPRM, the FCC tentatively concludes that it should mandate that all users of numbering resources supply forecast and utilization data to the NANPA, which would serve as the single point of collection for telephone number usage and forecast data.[68] PCIA supports an FCC rule requiring carriers to submit utilization rate reports and months-to-exhaust forecasts

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68 *NPRM*, ¶ 73.

to the NANPA on an annual basis. Non-LNP-capable carriers should be required to submit reports of number utilization rates at the NXX level, listed by rate center. Any additional granularity would be unnecessary, because these carriers can only receive numbers in blocks of full NXXs, and cannot participate in 1000 block pooling.

Consistent with these requirements, PCIA supports the NANC recommendation that the COCUS be replaced with the "Hybrid Model" that the NRO WG developed.[69] PCIA agrees with the NRO WG that the Hybrid approach appears to provide the optimum balance of keeping data collection and reporting burdens on service providers at a manageable level while providing NANPA with the information necessary to make more accurate exhaust projections.

By tracking utilization rates over time, the NANPA will be able to track growth rates more accurately than would be possible solely using months-to-exhaust forecasts or utilization rate reports supplied with applications for additional numbers. By examining and comparing the data it receives from carriers, the NANPA will gain a better understanding of carrier and industry numbering use trends. The NANPA can use this understanding to guide its decisions on whether further area code relief is necessary or whether to recommend an audit of a specific carrier.

In response to the FCC's inquiry about how extensively utilization data should be made available, PCIA submits that the NANPA is the only entity that should be allowed to collect data from carriers or other code holders. This information is of proprietary value, and all such information provided to the NANPA should receive confidential treatment. If the reports

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69 *See Common Carrier Bureau Seeks Comment on North American Numbering Council Recommendation Concerning Replacement of Central Office Code Utilization Survey*, Public Notice, DA 99-1315, CC Docket 99-200, NSD File No. L-99-51 (rel. July 1, 1999); *Recommendation of the North American Numbering Council Concerning the Replacement of the Central Office Code Utilization Survey (COCUS)*, Presented to the Federal Communications Commission on June 30, 1999.

are treated as confidential, carriers will have more incentives to comply fully with the reporting requirements by supplying candid and complete information. The NANPA should not share this data with the states, except in aggregate form, to assure that carrier-specific data is not disclosed. Moreover, the states have no real need to see the carrier-specific data provided the NANPA informs them when an NPA is nearing exhaust.

C. The FCC Should Adopt Rules Permitting Reasonable Audits To Be Performed "For Cause" and Should not Adopt Industry-Wide Audits.

PCIA agrees with the FCC that reasonable audit requirements could be used to verify the validity and accuracy of utilization data. Audits must be reasonable both in terms of timing and scope, because they impose significant costs on carriers. The FCC should be the only party to conduct audits, and the FCC should make its own determination whether to conduct a "for cause" audit upon notification by the NANPA that a "for cause" audit may be justified. The need for a "for cause" audit may be determined from the data utilization rates provided to NANPA on an annual basis. PCIA submits that audits should be no more intrusive then absolutely necessary to verify that carriers have been accurately reporting number utilization data.

D. The FCC Should Rely on its Existing Enforcement Powers Rather Than Adopt Additional Enforcement Regulations.

In the NPRM, the FCC tentatively concludes that the NANPA should be empowered to withhold NXX codes as sanctions for violation of CO Code Guidelines. PCIA opposes the grant of authority to the NANPA to withhold codes as sanctions for rule violations. The FCC, not NANPA, should serve as the sole enforcer of the numbering rules. Requiring NANPA to assume enforcement responsibilities would interfere with the simple, transparent and

non-discriminatory process for number allocation, and could lead to contentious disputes with carriers. Instead, NANPA should report suspected rule violations to the FCC for enforcement.[70]

PCIA also opposes the withholding of codes as a penalty for violations of numbering rules. Such a punishment could lead to situations where a carrier is denied numbers it validly needs to meet consumer demand in punishment for a past rule violation, which actually punishes innocent consumers who would not be able to receive desired services. Current FCC rules provide the FCC with ample enforcement tools to deal with any situation that might arise, and the FCC has established procedures for enforcing its rules and hearing appeals from decisions to impose penalties.

PCIA also urges the FCC not to authorize the states to enforce national numbering rules. Numbering is a national issue, and enforcement should be performed at the national level to ensure uniformity in penalties and non-discriminatory application of the numbering rules. Moreover, authorizing the states to enforce the numbering rules could require the NANPA to provide states with confidential information, or the states might not have complete information upon which to base decisions in enforcement proceedings. In any event, PCIA submits that auditing and enforcement procedures are often counterproductive because they, like number rationing, divert attention from the important issues at hand: ensuring that all carriers have a reliable source of numbers.

PCIA submits that the only significant reason why COCUS does not provide accurate forecasting information is that carriers may overestimate their needs because they cannot be certain that some states will ensure that adequate numbering resources are available to

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[70] Of course, if a carrier fails to complete the necessary paperwork for a code, including a months-to-exhaust worksheet, NANPA should not give that carrier the code until it complies with the application requirements.